

Habitat restoration is planned for this site

We are planning to restore marsh habitats to improve conditions for juvenile salmon and other wildlife.

Raincoast Conservation Foundation is working with Ducks Unlimited, the Lower Fraser Fisheries Alliance, and Asarum Ecological Consulting to conduct research and restoration on past habitat compensation sites in the Fraser River.

The Lower Fraser faces high levels of development pressures which have resulted in the loss of much of the habitat that once existed, leaving large areas where little productive habitat exists, and juvenile salmon must continue their downstream migration in search of rearing and feeding areas. Therefore, our goal is to restore habitats along the Lower Fraser River and estuary to increase the overall availability of productive habitats for juvenile salmon and build towards a connected network of habitat for juvenile salmon.

Habitat degradation and opportunity for restoration

The Woods Island Marsh is located in the North Arm of the Lower Fraser River, and is part of the Sea Island Conservation Area which is managed by federal authorities at Environment and Climate Change Canada. It is a habitat compensation marsh created to offset for a barge-offloading facility which was associated with the Vancouver International Airport (YVR).

This project site was planted with native Lyngbye's sedge (*Carex lyngbyei*), however they have become completely dominated by hybrid cattail (*Typha x glauca*), an invasive species that appears to

reduce the site productivity for juvenile salmon. Design features that were intended to protect the sedge marsh, in the form of a wooden debris screen, appear to have facilitated the hybrid cattail invasion, as it resulted in poor site drainage, elevated nutrients, and higher sediment accretion rates, which together promote cattail dominance. Further, the debris barrier was constructed of treated lumber and is showing a high level of degradation.

Did you know?

Currently, the large rock that was originally placed as the lining of an outlet channel to allow fish access into the marsh has been moved by park users to create a makeshift bridge which has significantly reduced tidal exchange within the marsh. The wooden screen which was placed to block wood debris has also contributed to degradation of the site and reduction of its value for juvenile salmon. This will be removed, and replaced with larger flat stones which will still block wood debris without impeding the flow of water and the movement of fish. A second channel will also be added at the west side of the marsh to further improve fish access and marsh inundation. The channel under the wooden bridge which connects the marsh to the east will be deepened, and public access along the wood bridge to the east part of the beach will continue as before.

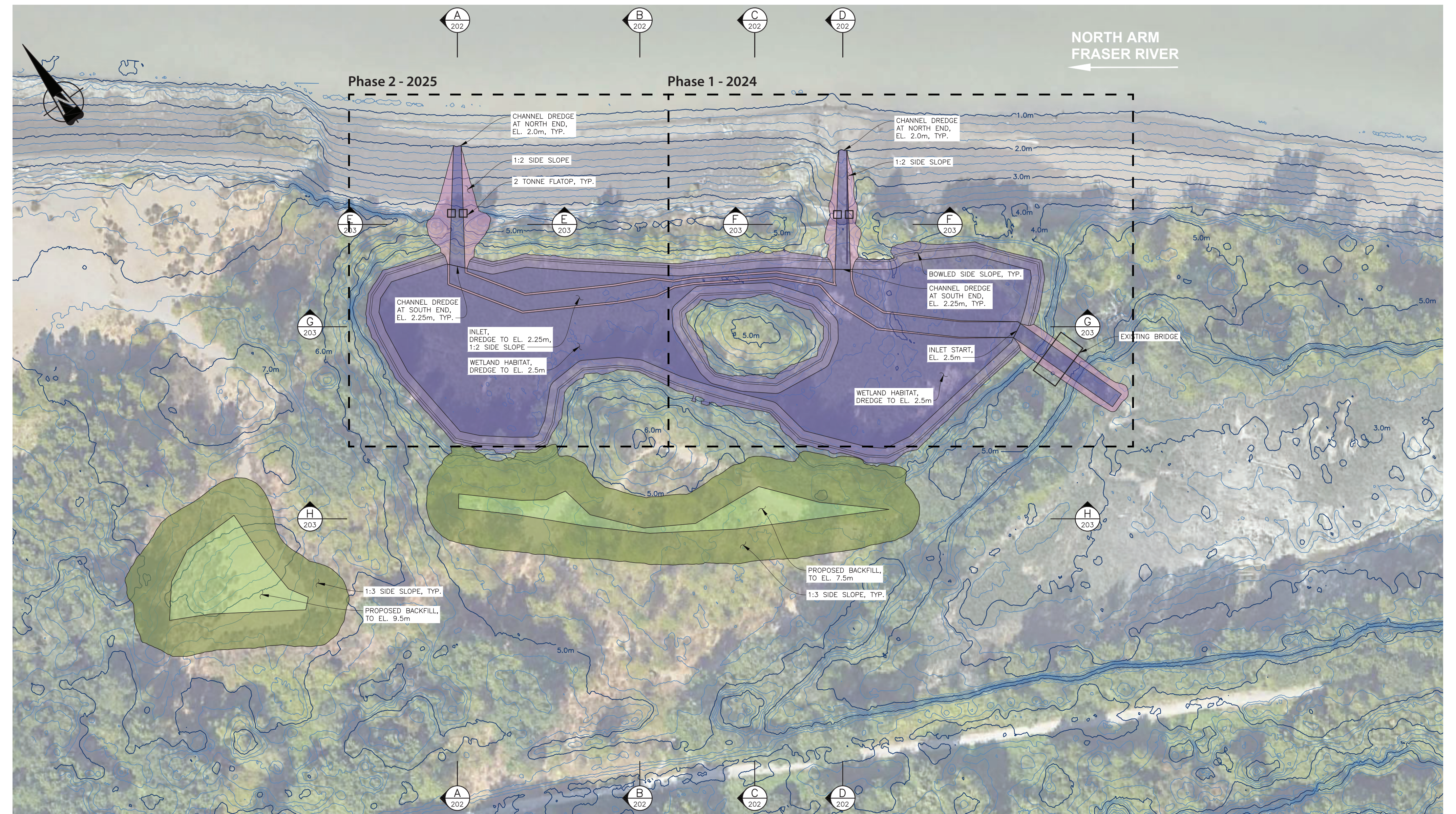
Our goal is to improve the function of these marshes by restoring desired native vegetation, and improving habitat and access for juvenile salmon. This will be done through repeated cutting of hybrid cattail, restoring the outlet channel, as well as improving the conditions that support native sedges.

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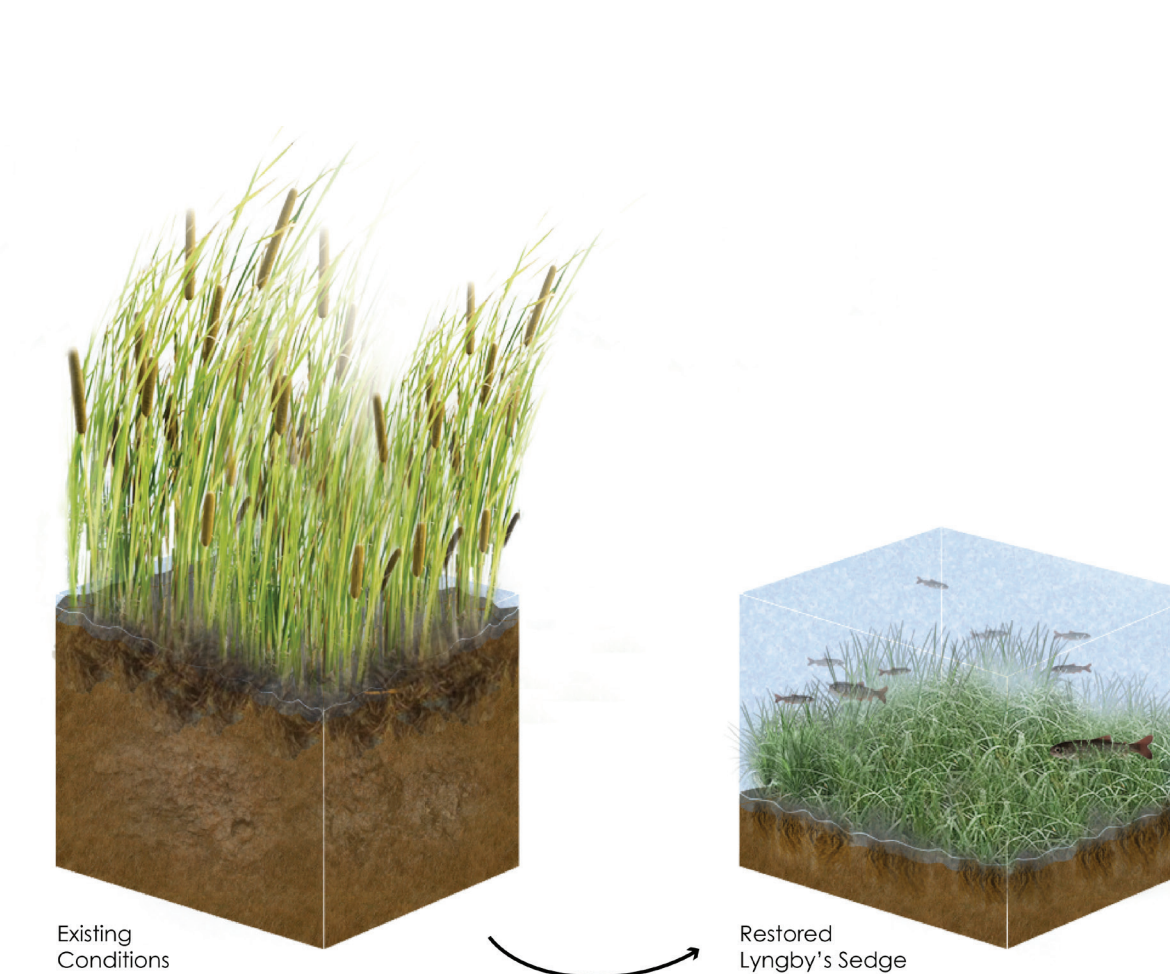


Funding is provided by The Government of Canada and the Province of British Columbia through the BC Salmon Restoration and Innovation Fund.

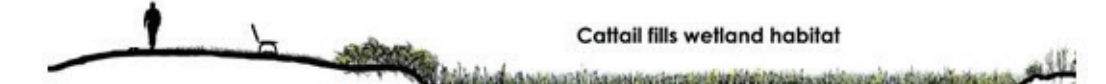
Thank you to Ducks Unlimited Canada, Lower Fraser Fisheries Alliance, and Asarum Ecological Consulting, with support from the City of Richmond.



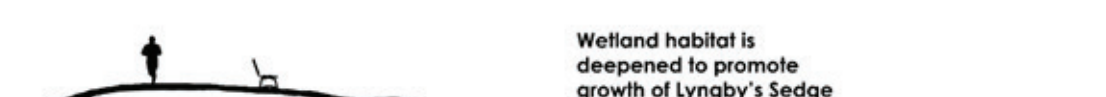
Preliminary site plan. Phase 1 will occur in fall 2024 and will restore the existing outlet channel and the east marsh basin, proposed phase 2 works in Fall 2025 would add a second outlet and restore the west basin.



Existing Conditions



Construction



Restored Shoreline



www.raincoast.org/habitat/

Contact Dave Scott with any questions. dave@raincoast.org